

APPENDIX IV

CLEAN AIR ACT PENALTY POLICY AS APPLIED TO STATIONARY SOURCES OF VOLATILE ORGANIC COMPOUNDS WHERE REFORMULATION TO LOW SOLVENT TECHNOLOGY IS THE APPLICABLE METHOD OF COMPLIANCE

Introduction

This addendum provides guidance for calculating the civil penalties EPA will require in pre-trial settlement of district court enforcement actions, pursuant to Title I of the Clean Air Act (CAA), against sources of volatile organic compounds- (VOC's) in violation of State Implementation Plan emission limitation, where low solvent technology (LST) is an acceptable control strategy for achieving compliance. If compliance using LST is the control strategy chosen by the source and if it can be im-

plemented expeditiously, the penalty analysis methodology set forth in this appendix must be used. If compliance using LST is not the compliance strategy chosen by the source, or if LST cannot be accomplished expeditiously or is not available, the penalty must be calculated according to the general Clean Air Act Stationary Source Civil Penalty Policy, (hereinafter CAA Penalty Policy), based on the costs of add-on controls.

A separate policy for arriving at a penalty figure in VOC cases where LST is an acceptable control strategy is necessary because penalties calculated pursuant to the general CAA Penalty Policy in such instances are insufficient to deter violations.~/
The general Penalty Policy focuses upon recapturing the economic savings of non-compliance-based upon the typically substantial capital expenditures and operation and maintenance costs of the necessary pollution control equipment. The capital costs of implementing LST are by comparison relatively small and in many cases LST actually results in a net economic savings.2/

This guidance, therefore, sets forth an objective methodology for arriving at a substantial cash penalty figure in cases not requiring the expenses associated with add-on technology. Specifically, in all VOC cases including those where a source may choose to come into compliance using LST as a control option, Regions must base their pre-negotiation penalty calculations for the Economic Benefit Component on the cost of add-on controls. Once negotiations begin, the Region may

recalculate the penalty figure using the alternative methodology in this Appendix where applicable based on information to be supplied by the source. The Economic Benefit Component will be re-calculated based on the cost of LST as a control option. An additional penalty component (hereinafter referred to as the Production Component) must thereafter be calculated by multiplying the dollar amount of sales on the non-complying lines as reported by the source, by the average return on sales for the industry, to be supplied by NEIC. The average return on sales is the norm for the industry for net profits after taxes divided by total sales. Industry specific average return on sales multipliers are available from the Information Services Office at NEIC in Denver, FTS 776-5124 (contact Charlene Swibas). NEIC will require the following information from the Region to calculate the average return on sales multiplier for an individual source: (1) type of VOC source, (2) total assets or number of employees, and (3) dollar amount of sales produced on the non-complying lines by year. In this regard, EPA should advise sources that it is to their benefit to supply EPA with detailed information such as a plant specific breakdown of assets rather than company wide reports, and line-by-line sales figures. This will help ensure that the penalty is limited to sales from production on their non-complying lines as opposed to their total sales. When verifiable line-by-line production information is not available the Regions must base their estimates on sources' total sales as reported in company books and annual reports. In addition, the Production Component figure may be adjusted to reflect the source's actual return on sales where this figure can be established from reliable information.

The total of the Production and Economic Benefit Components should be compared to the penalty that would have been imposed were the source coming into compliance using add-on controls. In no event should the total of the Economic Benefit and Production Components exceed the penalty amount based solely on the cost of add-on controls.

This policy may be used in all situations involving LST as an acceptable compliance option, including those where the source is granted an expeditious schedule to continue development of LST, but may ultimately have to comply using add-on controls. In those situations where the source will comply through a combination of LST and add-on controls, the penalty may be adjusted in accordance with this Appendix only to the extent the two compliance options and the source's financial data are

segregable on a line-by-line basis.

No other adjustments to the Economic Benefit and Production Components may be made other than as contemplated in the general CAA Penalty Policy. These adjustments are described in Section II.A.3. of the general Policy. In addition, in all cases the Gravity Component should be estimated in accordance with the general CAA Penalty Policy. This policy is based upon the principles established by the CAA Penalty Policy and general Agency policies.

The Production Component formula produces penalties which automatically account for the size of the source and correlate with the emissions volume from non-complying lines. Moreover, attaching a source's after tax net profits on noncomplying production helps to ensure a meaningful penalty without impinging on employee salaries~ necessary operating costs, or tax deductions for good faith pollution control expenditures such as on LST.

Removing the profitability of non-complying production is particularly appropriate in cases where LST is an acceptable control strategy due to the ease with which many such sources could have come into compliance, as well as the competitive advantage some VOC sources obtain from non-compliance. For example, many paper coating concerns have continued to use high solvent coatings due to the versatility such solutions afford in meeting customer preferences such as color brightness. Such VOC sources are, thus., probably able to capture a larger share of the market due to their noncompliance. Similarly, metal furniture coaters have had high solid emulsion-LSTs available for many years. Many sources have, however, delayed the minimal coats and process changes necessary to come into compliance, perhaps enabling these businesses, in the short run, to offer their products at a slightly reduced price.^{3/}

What follows is the specific methodology to be applied in calculating civil penalty settlement amounts in actions against sources of VOC where LST is an acceptable control strategy.

Alternative Methodology for Calculating VOC Penalties Where LST
is the Applicable Method of Compliance

ECONOMIC BENEFIT COMPONENT*

+

PRODUCTION COMPONENT

total sales from production on non-complying lines
x industry norm return on sales

Compare this figure to the penalty based on the cost of add-on
controls as the control option. Use the lower of the two figures.

+

Settlement Adjustments to Production component** substitute the
source's actual return on sales for the average industry return
on sales

+

GRAVITY COMPONENT*

+

Settlement Adjustments to Gravity Component*

ADJUSTED MINIMUM PENALTY FIGURE

* See, Clean Air Act Civil Penalty Policy for the procedures to follow in making these calculations. Note, however, that the CAA Penalty Policy permits Regions in their discretion not to seek to recover the Benefit Component when it is likely to be less than 65,000. This Appendix contemplates including the Economic Benefit Component along with the Production Component even where the Economic Benefit is estimated to be Less than \$5,000. If the combination of both the Economic Benefit and. Production Components is estimated to be Jess than \$5,000 it is not necessary for the case development team to include either one in the minimum settlement penalty amount.

** Note that the considerations described in Section II.A-3 of

the general policy may also be applied in adjusting the
Production Component as well as the Economic Benefit Component.

FOOTNOTES

1. Penalties must be high enough to have the desired specific and general deterrent effects. They must also be, to the extent possible, objective in order to ensure fairness. The general CAA Penalty Policy, relying on the cost of pollution control equipment, does not provide such penalties in the case of VOC sources using LST. Indeed VOC penalties have been much smaller than the penalties collected in other CAA cases. A sample of VOC sources, with total sales in the \$10,000,000 range, have had civil penalties ranging from \$2,000 to \$45,000. By comparison, a company cited for TSP violations, with sales in 1983 of \$4,656,000, will be asked to pay a minimum of \$75,000 in penalties.

2. Although substantial capital expenditures are required for VOC sources using add-on technology to come into compliance, sources having the option of using low solvent or water-based technology derive economic savings by coming into compliance. For example, reformulation to LST generally involves only minor mechanical and process modifications costing less than \$10,000. (See note 4 infra.) These small outlays are recaptured by subsequent cost savings. For example, water-based coatings are usually less expensive. Similarly, high solid emulsion-LSTs, although perhaps more expensive on a volume basis, are more efficient when properly applied, requiring fewer coatings. Reduced VOC emissions result in further indirect savings in the form of lower employee health problems and absenteeism, reduction in the cost and amount of OSHA-required ventilation, and lower fire insurance rates. Finally, the vast majority of VOC sources having LST as a readily available option for compliance make only small investments in R&D, expenditures which are, moreover, fully tax deductible.

3. Use of high solid emulsion-LST requires installation of a \$5-7,000 emulsion heater, retraining of employees to apply the thicker emulsion, and installation of a larger or more efficient metal washing system to prevent pitting. As is noted above, however, these costs are in the long run recaptured by the economic savings associated with high solid emulsion-LST. (See note 2 supra.)